

REMARKS

This is in response to the Office Action dated March 26, 2008. Claims 1 and 3-19 are pending. Claims 1 and 3-19 stand rejected in the outstanding Office Action. Claims 1, 14 and 19 have been amended.

Applicant thanks the Examiner for the consideration of the Information Disclosure Statement filed November 9, 2007.

The rejection of claim 1 and 14, as allegedly being anticipated under 35 U.S.C. §102(b) over Stein et al. (US 5,071,491), is respectfully traversed. Stein fails to disclose or even remotely suggest each and every limitation set forth in the claim. Anticipation requires that “each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference”, *Verdegaal Bro. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987) (MPEP § 2131).

Amended claims 1 and 14 now recite “the edge face sealing member having a unitary structure” and “wherein, in the final solar cell module, there is substantially no gap between the one or more upper and lower sealing regions of the edge face sealing member and the one or more front and back surfaces of at least one of the solar cell module body or bodies, respectively, when the edge face sealing member is captured within at least one of the frame body or bodies while capturing at least one of the solar cell module body or bodies along substantially an entire edge portion perimeter thereof”. Support for the above amendments can be found in, for example, Fig. 2 and Fig. 3(b). Stein does not disclose or suggest the above limitations.

The Examiner has identified the combination of the seals 26 and the insulation 27 in Fig. 7 of Stein as the claimed edge face sealing member. He has not specifically addressed the member that is between the seals 26 and the insulation 27, apparently considering said member

as being part of insulation 27. Furthermore, he stated that “As seen in Fig. 7, the upper and lower seals 26 and insulation 27 are either attached to each other directly or via the frame 24. Therefore, it is the Examiner’s position that the edge face sealing having an integral structure (attaching to each other to form a whole)...”.

With the above amendment, it is made clear that the edge face sealing member comprises a unitary structure. Unitary is defined as “undivided, whole”. The structure disclosed in Fig. 7 comprises several separate pieces, including the upper and lower seals 26, the insulation 27 and the member between insulation 27 and the seals 26. Even if insulation 27 is part of the member, the collective edge face sealing member is still not a unitary structure. Furthermore, even the Examiner has acknowledged that “Therefore, it is the Examiner’s position that the upper sealing region, the lower sealing region and the side sealing region are formed integrally because different portions are connected to form a whole”, see sentence bridging pages 23-24. Finally, Stein fails to indicate that the various parts are even in contact with each other. For example, it appears in Fig. 7, that the lower seal 26 is not in contact with the member. Therefore, it would not have been obvious to connect all the pieces into one unitary member.

In addition, with the above amendment, it is made clear that after the edge face sealing member has been inserted into the frame body, “there is substantially no gap between the one or more upper and lower sealing regions of the edge face sealing member and the one or more front and back surfaces of at least one of the solar cell module body or bodies, respectively” (see Fig. 3(b) of the present application). Stein is silent as to this limitation. In Fig. 7, the seals 26 have tip portions which are not flattened, even though the composite edge face sealing member has been inserted into the frame 24.

The rejection of claim 19 under 35 U.S.C. §103(a) as allegedly being unpatentable over Stein et al. (US 5,071,491) in view of Hatsukaiwa et al. (US 2003/0034064) is respectfully traversed.

The Examiner has alleged that it would have been obvious to one of ordinary skill in the art to have the sidewalls of the edge face sealing member of Stein connected via a bottom wall, as taught by Hatsukaiwa, because “it would provide a proper fixing means and a protection from environmental elements”. The above discussion regarding the lack of any gap between the surfaces, a feature that is lacking in Stein, is not taught by Hatsukaiwa as well.

The rejection of claims 1, 14 and 19 under 35 U.S.C. §103(a) as allegedly being unpatentable over Yoda et al. (US 6,528,718) in view of either Meadows (US 3,455,080) or Hatsukaiwa et al. (US 2003/0034064) is respectfully traversed.

The Examiner has taken the position that the adhesive 4 which is used to connect the glass module with the frame 51a (see Fig. 3 in Yoda), which adhesive was characterized by the Examiner as being the disclosed edge face sealing member, can be replaced by either the window sash frame member (Fig. 2) of Meadows or the gasket 64a (Fig. 22) of Hatsukaiwa.

First, the window sash frame member of Meadows cannot be inserted into the frame 51a of Yoda, since it is a frame itself. As can be seen in Figures 1, 2 and 4, the sash frame member is affixed at the outer periphery of the glass 27, so that the final product is the one shown in Figs. 1 and 4. The window sash frame member of Meadows is not supposed to be inserted into another frame. Even though there are no specific dimensions disclosed in either reference regarding the relevant members, it is clear from the whole disclosure of Meadows, including the drawings, that the insertion of the glass 27 into the sash frame 11 results in a final product (seen in Figs. 1 and

4, see also col. 3, line 57 to col. 4, line 6). Typically, a frame encapsulating a glass panel is not small enough to be inserted in a second edge face sealing member.

In addition, nothing in Meadows indicates that after the insertion of the sash frame member into a frame, “there is substantially no gap between the one or more upper and lower sealing regions of the edge face sealing member and the one or more front and back surfaces of at least one of the solar cell module body or bodies, respectively”, i.e., that protrusions 22, 23, 24, 25 would be completely squashed (unlike what is shown in Fig. 2, where the glass 27 has been inserted into the window sash frame member, and there are still gaps therebetween).

Second, regarding the gasket 64a of Hatsukaiwa, even if it were used instead of the adhesive 4 for affixing the solar cell module to the frame in Yoda’s device, there is no explicit teaching or suggestion in Hatsukaiwa that “there is substantially no gap between the one or more upper and lower sealing regions of the edge face sealing member and the one or more front and back surfaces of at least one of the solar cell module body or bodies, respectively”. Hatsukaiwa is completely silent as to this feature, and Fig. 22 shows gaps between the top and bottom sealing regions and the front and back surfaces of the solar cell module.

For the above reasons, independent claims 1, 14 and 19 are allowable.

It is respectfully requested that the rejection of claims 3-13, 15-18, all being dependent from claim 1 or 15, also be withdrawn.

In view of the foregoing and other considerations, all claims are deemed in condition for allowance. A formal indication of allowability is earnestly solicited.

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

YOSHIDA et al.
Appl. No. 10/688,994
June 23, 2008

Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: /Leonidas Boutsikaris/
Leonidas Boutsikaris, Ph.D.
Reg. No. 61,377

LB:tlm
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100